tiveness of SNM versus OMT and BonT-A. **METHODS:** A Markov model with Monte-Carlo simulation was used to assess the ICER of SNM vs. BonT-A and OMT both in deterministic (base-case) and probabilistic (sensitivity) analysis from a provincial payer perspective over a 10-year time horizon with 9 month Markov-cycles. Clinical data, healthcare resource utilization and utility scores were acquired from recent publications and an expert panel of 7 surgeons. Cost data (2011 Dollars) were derived from provincial health insurance policy, drug benefit formulary and hospital data. All cost and outcomes were discounted at 3% rate. **RESULTS:** The annual (year 1-10) incremental QALY for SNM vs. BonT-A was 0.05-0.51 and SNM versus OMT was 0.19-1.76. The annual incremental cost of SNM versus BonT-A was $7,237 in year-1 and -$9,402 in year-10 and was between $8,878 to -$11,447 vs. OMT. In the base-case deterministic analysis, the ICER for SNM vs. BonT-A and OMT were within the acceptable range ($44,837 and $15,130 respectively) at 2nd-year of therapy, and SNM was dominant in consequent years. In the base-case analysis the probability of ICER being below the acceptability curve of (Willingness-To-Pay=$50,000) was >99% for SNM versus BonT-A at year 3 and >95% for OMT at year-2. **CONCLUSIONS:** SNM is a cost-effective treatment option for the management of patients with refractory OAB when compared to either BonT-A or OMT. From a Canadian payers' perspective, SNM should be considered as first-line treatment option in management of patients with OAB.

PMD28

COST EFFECTIVENESS OF DRUG-ELUTING STENT FOR PATIENTS UNDERGOING PERCUTANEOUS CORONARY REVASCULARIZATION IN HONG KONG

Yan B[1], Lee V[1], Liu M[1], Reid C[2], Yu CM[1]
[1]*The Chinese University of Hong Kong, Shatin, Hong Kong,* [2]*Monash University, Melbourne, Vic, Australia*

OBJECTIVES: Drug-eluting stents (DES) reduce the need for target repeat revascularization (TVR) compared with bare metal stents (BMS) but are two to three more expensive. We aim to assess the cost-effectiveness of DES in Hong Kong. **METHODS:** Consecutive patients undergoing percutaneous coronary intervention (PCI) at our institution from September 2009 to September 2010 were evaluated. Clinical outcome was measured by the occurrence of major adverse cardiac events (MACE), including death, myocardial infarction and clinically driven TVR. Direct healthcare costs for index procedure, TVR, and follow-up costs were assessed. An EQ-5D questionnaire was used to measure quality of life for the baseline and 6 months post PCI. The main outcome was the incremental cost-effective ratio (ICER) for additional cost per TVR avoid and per quality-adjusted life-year (QALY) gained. Costs are expressed in US dollars (1USD = 7.7HKD). **RESULTS:** A total of 761 patients (DES=476, BMS=285) were evaluated. Clinically driven TVR occurred in 3.6% and 4.2% of DES and BMS patients, respectively (p=0.68). One year total healthcare costs was higher for DES patients (US$13,303) than BMS patients (US$12,075, p<0.01). Both groups experienced significant improvement in health utility score at 1 year compared to baseline but there was no significant difference between DES and BMS patients (p=0.07). QALY gained for DES and BMS patients were 0.415 and 0.375, respectively (p=0.61). The incremental cost per QALY gained was US$30,700 and per TVR avoided was US$204,667. **CONCLUSIONS:** In this real-world PCI registry, the use of DES was associated with significant improvement in quality of life and low TVR rates which were similar in comparison with BMS. Based on these results, DES can be considered cost-effective in terms of QALY gained but not for additional TVR avoided in Hong Kong.

PMD29

THE COST-EFFECTIVENESS OF DIAGNOSTIC SIGMOIDOSCOPY BEFORE COLONOSCOPY IN 40 TO 49-YEAR-OLD SYMPTOMATIC PATIENTS

Blaylock B, Hay J, Zarchy T
University of Southern California, Los Angeles, CA, USA

OBJECTIVES: Early diagnosis of colorectal cancer (CRC) has been shown to improve life expectancy, and colonoscopy and sigmoidoscopy are cost effective techniques for CRC diagnosis in older age groups. The objective of this study was to determine the cost-effectiveness (i.e., cost per QALY) of performing sigmoidoscopy, to check for neoplasms in the distal colon, before performing colonoscopy in a group of symptomatic 40-49 year old patients from a US societal perspective. **METHODS:** Los Angeles County colonoscopy data was reviewed for symptomatic patients without a family history of CRC to obtain neoplasm rates (N=883). Records were collected from April 2003 to April 2008. Additional parameters for the decision tree analysis were extracted from a systematic literature review. **RESULTS:** Diagnostic sigmoidoscopy (DS) followed by diagnostic colonoscopy (DC) in patients with a distal advanced neoplasm was shown to be the most cost-effective strategy (ICER=$48,368), DS followed by DC in patients with any distal neoplasm was next (ICER=$157,114), and DC for all symptomatic patients was the least cost-effective (ICER=$184,724). DS followed by DC in patients with any distal neoplasm was sometimes less cost-effective than DC for all symptomatic patients in a one-way sensitivity analysis. A threshold analysis was completed for the cost of colonoscopy. **CONCLUSIONS:** DS followed by DC in patients with distal advanced neoplasm was shown to be cost-effective at a $50,000 willingness-to-pay threshold. The other diagnostic strategies did not meet that threshold. Although, DS followed by DC in patients with any distal neoplasms nearly met a threshold of $150,000. All strategies were most sensitive to the stage of CRC at diagnosis and the prevalence of patients with advanced neoplasm. A colonoscopy cost reduction of over 40% was necessary to make DC for all symptomatic patients a cost-effective strategy at a $50,000 threshold and over 25% at a $100,000 threshold.

PMD30

COST-EFFECTIVENESS OF SCREENING AND EARLY DETECTION STRATEGIES FOR COLORECTAL CANCER IN COLOMBIA

Pinzón Flórez CE[1], Gamboa OA[2], Murillo moreno R[2], Rosselli D[1]
[1]*Pontificia Universidad Javeriana, Bogota, DC, Colombia,* [2]*Instituto Nacional de Cancerología, Bogota, DC, Colombia*

OBJECTIVES: To evaluate cost-effectiveness of the implementation, in Colombia, of different screening strategies for colorectal cancer (CRC): fecal occult blood stool guaiac test (OB-GT), fecal occult blood immunochemical test (OB-IT), conventional colonoscopy, sigmoidoscopy, OB-GT followed by sigmoidoscopy, and OB-IT test plus sigmoidoscopy. **METHODS:** We designed a Markov model representing the natural history of CRC in adult Colombians, for the whole lifespan of each individual, in one-year cycles, using local demographic and epidemiological data. This model was then modified for each of the screening strategies, assuming detection rates based on systematic review of the literature. Direct medical costs, from the Colombian health system perspective (third-party payer), were estimated using base-case data analysis from the Instituto Nacional de Cancerología (the Colombian national cancer reference center) and applying two different national tariff manuals (locally known as SOAT and ISS-2001). The costs assigned to each screening strategy included other diagnostic procedures included in standard protocols as well as therapy for pre-neoplasic or cancer therapy at different stages of the disease. A strategy was considered cost-effective if an incremental life year gained (LYG) costs up to three times the per capita GDP of US$6225. Discount rate was 3%, for costs and LYG. **RESULTS:** The cost in US$ per LYG differed markedly depending on the tariff manual used. In both cases, however, biennial OB-GT was cost-effective (US$10,641 and US$2,694 per LYG), compared with annual OB-GT (US$ 18,902 and US$27,237 per LYG), and biennial OB-IT (US$46.439 and US$14.040 per LYG). Other screening strategies were clearly not cost-effective under our assumptions. Probabilistic sensitivity analysis did not change results significantly. **CONCLUSIONS:** The most cost-effective screening strategy for CRC in Colombia (and the only one below our threshold) was biennial feccal occult blood guaiac test.

PMD31

COST-EFFECTIVENESS ANALYSIS OF EGFR TESTING AND GEFITINIB FOR NON-SMALL-CELL LUNG CANCER (NSCLC) IN JAPAN

Shiroiwa T[1], Miyoshi Y[2], Tsutani K[3]
[1]*Ritsumeikan University, Kusatsu, Shiga, Japan,* [2]*QIAGEN.K.K, Tokyo, Japan,* [3]*Tokyo Univ. Faculty of Pharmacy, Tokyo, Japan*

OBJECTIVES: Gefitinib, selective epidermal growth factor receptor tyrosine kinase inhibitor improves progression free survival and overall survival for non-small-cell lung cancer (NSCLC) patients. However patients with EGFR gene wild-type don't benefit from gefitinib. **METHODS:** We performed cost-effectiveness analysis of EGFR testing and gefitinib treatment as first-line therapy for NSCLC patients. In our analysis, we considered three groups:(A) gefitinib treatment for all the patients without EGFR testing, (B) chemotherapy (carboplatin / paclitaxel) for all the patients without EGFR testing, and (C) gefitinib treatment for mutation patients and chemotherapy(carboplatin / paclitaxel) for wild-type patients with EGFR testing. The cost-effectiveness of two comparison groups was calculated: group A vs. C (cost-effectiveness of EGFR testing) and and group B versus C (cost-effectiveness of gefitinib treatment with EGFR testing). Outcome of gefitinib or chemotherapy was based on Iressa Pan-Asia Study (IPASS) [Fukuoka M et al. (2011)]. Only medical costs were included from the perspective of Japanese healthcare payer (the cost of EGFR testing is JPY 20,000 (=USD 260, 1USD=JPY77). Discount wasn't performed because of short time horizon. **RESULTS:** ICER of gefitinib with EGFR testing was JPY 900,000 (USD 12,000) (group A vs. C) per life year gained (LYG) and the ICER of chemotherapy with EGFR testing was JPY 3,580,000 (USD 46,500) (group B vs. C) per LYG. The cost of EGFR testing was not influenced on the results. If the cost of EGFR testing is increased to JPY 80,000 (USD 1,000), the ICER was changed to JPY 1,100,000 (USD 14,000) (group A vs. C) per LYG and JPY 4,870,000 (USD 63,000) per LYG, respectively. **CONCLUSIONS:** EGFR testing is cost-effective, however it is not clearly shown that gefitinb is cost-effective even if EGFR testing is used. EGFR testing is also recommended from the economic perspective if gefitinib is considered to be administered.

PMD32

COST-EFFECTIVENESS OF DRUG-ELUTING STENTS VERSUS BARE-METAL STENTS FOR SINGLE- AND MULTI-VESSEL PERCUTANEOUS CORONARY INTERVENTION

Yan B[1], Lee V[1], Liu M[1], Reid C[2], Yu CM[1]
[1]*The Chinese University of Hong Kong, Shatin, Hong Kong,* [2]*Monash University, Melbourne, Vic, Australia*

OBJECTIVES: We aim to evaluate the cost-effectiveness of drug-eluting stents (DES) in a real world setting of multi-vessel percutaneous coronary intervention (PCI). **METHODS:** We analyzed 795 consecutive patients undergoing PCI at our institution. Health outcomes was estimated in terms of quality adjusted life years (QALYs) gained measured using EQ-5D at baseline, 6 and 12 months after PCI. Total direct healthcare costs including cost of index procedure and follow-up costs incurred over 12 months were calculated. Incremental cost-effective ratio (ICER) per QALY gained was used to evaluate the cost-utility of DES. **RESULTS:** Of the 795 patients, 482, 201 and 61 patients underwent single-, 2- and 3-vessel PCI, respectively. DES was used in 62.7%, 62.6%, 58.7% and 68.9% in overall, single-, 2- and 3-vessel PCI procedures, respectively. There was progressive increase in QALY gain for patients who had PCI to 3- (0.43) than in 2- (0.40) and 1-vessel (0.39, p<0.01). DES was associated with higher 1 year total healthcare cost in all 3 groups but was more effective only in patients who underwent 2- and 3-vessel PCI with an ICER per QALY gained of US$3,131 and US$21,290, respectively. **CONCLUSIONS:** In this real-world